Menlo Park Notebook #71 [N-80-01-03]

This notebook has no dated entries but was probably used in 1880. The entries are by Edison and relate to published articles about chemistry, geology, and metals. Some articles are noted as being from the 1850 and 1870 editions of the Annual of Scientific Discovery. The label on the front cover is marked "Note Book." The book contains 231 numbered pages. Pages 14-231 are blank, except for a few doodles on pages 176, 182, 187, 196, and 229.

Pages not filmed: 14-231.

No 71

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From Library

144 Broadway N.Y.C.

Nov 1, 189..

That substance which gives out the greatest heat or energy in combining with another body requires the most energy to decompose it.

Grove says that he doubts that absolutely pure water has ever been prepared as it cannot be made by boiling to give up its nitrogen gas dissolved therein,

At a high heat platinum is porous to Hydrogen.

FROM THE LABORATORY OF
T. A. EDISON,
MENLO PARK, N. J.
U. S. A.

Sir Roderick Murchison lays down as axiomatic that the most auriferous rocks are of the Silurian age, That a certain geological zone in the crust of the earth is auriferous at all.

Gold he says have never been found in any stratified formations composed of secondary or tertiary deposits but is in crystalline and palæozoic rocks or in drift from these rocks. The most usual original position of the metal is in quartzose veni-stones that traverse altered Silurian slates, frequently near their junction with eruptive rocks over

Sometimes it is however partially diffused rocks of igneous origin — from this it appears that volcanic eruptions in connection with Silurian rocks, are to be regarded as the origin of gold formations, which of California contradicts these assertions — says Silurian or Devonian fossil west of the 116 Meridian, indeed of all strata found to silurian rocks but with the exception of Auriferous — in general there is gold in metamorphosed rocks which are Silurian

Glass (crown) used in Lighthouses —

Silicic acid —	72·1
Soda	12·2
Lime,	15·7
alumina & fe oxide	Trace —

In Birmingham its made from following mixture,

	cwts	quarts	lbs
Frenchsand —	5	—	
Carb Soda	1	3	7
Lime	0	2	7
Nitrate	0	1	0
Arsenious acid	0	0	3

Experiments in O Hydrogen light 1840
conducted in London proved that Zirconia
inferior to Lime, (perhaps impure) but it was
permanent. Magnesia cylinders took
longer time to heat to white heat & took
longer to cool hence higher specific
heat or rather poorer conductor perhaps
on account lightness. A native
Crystal of native Zircon, retained its hardness
after a great deal of abuse. Vitrification
(true) could only be observed under
lenses.

another account says that magnesia
does not equal lime in power of
resistance, with pressure of 3 inches
on gas they were rapidly eaten
away & moreover split by action of
gas — perhaps they were not
pressed enough & were split by
aqueous vapor in power expanding

Intense Light obtained by causing Oxy Hy gas to play upon Chloride of Titanium, or Chloro-Chromic acid –

another H and Charcoal maintained with Chloride Magnesium.

another – Cylinder of hard compressed Titanic acid, Magnesia & Carb magnesia

Graham states that red hot Palladium absorbs a quantity of Hydrogen before it commences to pass it through

Palladium enlarges after absorbing 900 times its volume to $\frac{1}{20}$ to $\frac{1}{25}$ its volume: in this case Hy is reduced to $\frac{1}{19000}$ its former volume: the weight of H thus absorbed is $\frac{8}{10}$ to $\frac{9}{10}$ that of the weight of the Palladium: to compress H to this extent would require a column of Hg having the diameter of two mt Blanc + 3 times the height –

Peroxide of thallium, may be set on
fire by the faintest electric spark
surpassing. Equal parts Chlorate
Potassium & black sulphide antimony
to prepare; Annual of Scientific Dis
1870. p 198 —

To make Molybdenum & chromium
see same p 223. to make Uranium
p 225 —

Platinum found in Quartz with gold
in Scotland. it not magnetic
like that from South America;

Gold ocean $710 per ton in
Farm of Samuel Elliot
Montgomery Co Maryland
— 1840. A Sc Dis p 256

Vanadium Excess in
Copper ores of Lake superior
A Sc Dis 1850 262, it
occurs in such a way as
to lead to inference that it
will be found in large
quantities

Zircon - Gadolinite &
Yellow Obsidian increase
their density by heat